

**USE OF INHIBITORS OF THE ACTIVATION OF CXCR4  
RECEPTOR BY SDF-1 IN TREATING RHEUMATOID ARTHRITIS**

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**Abstract of The Disclosure**

This invention provides a method for treating rheumatoid arthritis or other forms of inflammatory arthritis which comprises administering to a subject an amount of an agent effective to inhibit the activation of the CXCR4 receptor by SDF-1. This invention further provides a composition for treating rheumatoid arthritis comprising an effective amount of an agent capable of inhibiting the activation of the CXCR4 receptor by SDF-1 and a pharmaceutically acceptable carrier. This invention also provides a method for determining whether an agent is capable of inhibiting the activation of the CXCR4 receptor by SDF-1 comprising: (a) contacting cells expressing the CXCR4 receptor in the presence of SDF-1 with the agent under condition permitting activation of the CXCR4 receptor by SDF-1 if the agent is absent; and (b) determining whether the amount of activation of the CXCR4 receptor by SDF-1 is decreased in the presence of the agent relative to the amount of activation in its absence, such a decrease indicating that the agent is capable of inhibiting the activation of the CXCR4 receptor by SDF-1. Finally, this invention provides agents identified by such a method.

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